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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 45305.5-2026

Replacing GB/T 19889.1-2005

**Acoustics - Laboratory measurement of sound insulation of
building elements - Part 5: Requirements for test facilities and
equipment**

声学 建筑构件隔声的实验室测量 第5部分：测试设施和设备的要求

(English Translation)

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References

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 5 of GB/T 45305, "Laboratory Measurement of Sound Insulation of Acoustic Building Components". GB/T 45305 has been published.

The following parts were included.

---Part 2: Measurement of Airborne Sound Insulation;

---Part 3: Impact Sound Insulation Measurement;

---Part 4: Measurement Procedures and Requirements;

---Part 5: Requirements for testing facilities and equipment.

This document replaces GB/T 19889.1-2005 "Acoustics of Buildings and Building Components - Measurement of Sound Insulation - Part 1: Suppression of Lateral Sound Transmission".

The "Requirements for Laboratory Testing Facilities" has undergone significant technical changes compared to GB/T 19889.1-2005, except for structural adjustments and editorial modifications.

as follows.

---The appendix on "Measurement of sound insulation of grout walls (and all lateral wall structures) for window and glass installation openings" has been deleted (see Appendix 1).

Appendix B of GB/T 19889.1-2005

---The appendix on "Specific requirements for the sound insulation test opening structure of double-layer lightweight panel partition walls" has been deleted (see GB/T 19889.1-2005).

Appendix D) incorporates the requirements for the sound insulation test frame of double-layer lightweight panel partition walls into 4.3.2.3;

---Added requirements for small-sized and specific-sized test openings in airborne sound insulation measurements (see 4.3.3, 4.3.4);

---Requirements for sound insulation testing equipment have been added (see Chapter 6);

--- An appendix entitled "Standard Basic Components for Measuring the Airborne Sound Insulation Improvement of Acoustic Liners" has been added (see Appendix B);

--- An appendix entitled "Standard Floor Slabs for Measuring Impact Sound Improvement in Floor Coverings" has been added (see Appendix C);

--- An appendix entitled "Technical Requirements for Loudspeakers and Loudspeaker Locations" has been added (see Appendix D);

--- An appendix, "Standard Impactors," has been added (see Appendix E).

--- An appendix entitled "Alternative Impact Sound Sources" has been added (see Appendix F);

--- An appendix entitled "Wooden Model Floor Slab in Measuring Impact Sound Improvement of Floor Covering" has been added (see Appendix G);

--- An appendix entitled "Specifications for Heavy Rain and Torrential Rain - Example of a Perforated Bottom Gutter" has been added (see Appendix H).

This document is modified to adopt ISO 10140-5:2021 "Acoustic building components - Laboratory measurement of sound insulation - Part 5: Test facilities and equipment".

Requirements.

The technical differences between this document and ISO 10140-5:2021, and the reasons therefor, are as follows.

---ISO 10140-2 (see 4.2.2, 4.3.3, A.2.1) has been replaced with the normatively referenced GB/T 45305.2 to adapt to my country's technical standards.

Technical requirements;

---IEC 61672-1 (see 6.3) has been replaced with the normatively referenced GB/T 3785.1 to accommodate my country's technical requirements;

---IEC 61260-1 (see 6.3) has been replaced with the normatively referenced GB/T 3241 to meet my country's technical requirements;

---IEC 61672-2 (see 6.3) has been replaced with the normatively referenced GB/T 3785.2 to accommodate my country's technical requirements;

---IEC 61672-3 (see 6.3) has been replaced with the normatively referenced GB/T 3785.3 to accommodate my country's technical requirements;

---ISO 10140-1 has been replaced with ISO 10140-1:2021 (see 6.2, H.1) due to the specific clauses cited in the text.

The content.

The following editorial changes have been made to this document.

---Corrected a typographical error in the first paragraph of section 6.3 by removing the level "0";

---The attachment information regarding obtaining a type evaluation certificate for measuring instruments has been removed (see note 6.3);

---Added informative supplementary information, listing the "bottom-perforated water pipe array" as an optional device for rain noise measurement (see H.1).

Note);

---The unit of measurement in Figure H.1 has been changed to millimeters (mm);

---An informative appendix, "Bottom Perforated Water Pipe Arrays in Simulated Rainfall Generation Systems," has been added (see Appendix J);

---Some references have been added.

Please note that some content in this document may involve patents. The issuing